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Five personality scales, developed without regard to theory, were administered to 96 high school students. The correlations of these scales with four standard measures of academic achievement were compared with personality-achievement correlations from previous studies that used personality scales derived theoretically. These latter correlations were no larger, a result interpreted to mean that personality-achievement correlations are not enhanced by the use of theoretically derived personality scales. This interpretation is discussed in terms of previous hypotheses and Type I errors. Consideration is given to the five personality scales and to their relations with achievement. In particular, adaptiveness is related to reading achievement. About 25% of achievement variance is accounted for by personality, and about 50% by personality plus IQ. (Author/HH)

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Student Personality and Academic Achievement

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Abstract

Five personality scales developed without regard to theory were administered to 96 high-school students. The correlations of these scales with four standard measures of academic achievement were compared against personality-achievement correlations from previous studies which used personality scales derived theoretically. These latter correlations were no larger, a result interpreted to mean that personality-achievement correlations are not enhanced by the use of theoretically-derived personality scales. This interpretation is discussed in terms of previous hypotheses and Type I errors. Attention is given to the five personality scales and to their relations with achievement. The prediction of achievement from personality and intelligence is considered.

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Personality scales derived on the basis of theoretical considerations (theoretically-derived scales) are assumed to lead to a better prediction of academic achievement than that obtainable from personality scales derived otherwise (atheoretically-derived scales). However, the theoretically-derived personality scales used currently by Gough (1964a, b) lead to correlations with academic achievement which are virtually identical to those based on the atheoretically-derived scales used formerly (Gough, 1949). In a related area Levonian (1968) found that personality scales derived theoretically with the intent of predicting opinion change following a persuasive classroom communication fulfilled this intent no better than did scales derived atheoretically.

The purpose of the current study was to assess the extent to which published personality-achievement correlations could be attributed to the theoretical derivation of the personality scales. This assessment was made by comparing correlations involving the atheoretically-derived personality scales used in this study with correlations involving theoretically-derived personality scales used in all known previous studies which were otherwise sufficiently similar to the current study to be considered comparable (Butcher, Ainsworth, & Nesbitt, 1963; Cattell, Sealy, & Sweney, 1966; Gough, 1964a, b).

Method

Ss consisted of 96 nonselected students enrolled in required driver education classes in a single high school. Personality was measured by five

atheoretically-derived personality scales developed statistically from the responses of 1080 previous students; each item asked only whether the respondent would or would not take a described action relative to a specific driving situation. Achievement was measured in four academic areas by the California Achievement Test.

Results

The four comparison studies and the current study were compared on four types of personality-achievement correlations: (a) one personality scale and one achievement test in a specific area, (b) one personality scale and general academic achievement, as measured by a test battery or by GPA, (c) several personality scales and general academic achievement, and (d) several personality scales plus IQ with general academic achievement. In general, the correlations involving the atheoretically-derived personality scales were at least as high as those involving the theoretically-derived scales.

Discussion

The results are interpreted to mean that personality-achievement correlations are not enhanced by theoretically-derived personality scales. The usual advantages of theory appear to be cancelled by Type I errors. The likelihood of such errors is suggested by the failure in each of the four comparison studies (a) to make an overall test of the null hypothesis using simultaneously all measures of personality and achievement collected for the purpose, and (b) to consider the significant between-group differences which emerged with respect to personality-achievement correlations.

Consideration is given to the five personality scales and to their relations with achievement. In particular, adaptiveness is related to reading achievement. About 25% of achievement variance is accounted for by personality, and about 50% by personality plus IQ.

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